## Claims:

5

- 1. Use of an engine lubricating oil having a low sulphur content in combination with a fuel having a low sulphur content, to reduce the emissions of nucleation mode particles from a diesel engine fitted with a particulate trap.
- 2. A method of reducing the number of nucleation mode particles in the emissions from a diesel engine fitted with a particulate trap, which method comprises using an engine lubricating oil having a low sulphur content in combination with a fuel having a low sulphur content.
  - 3. Use or method according to claim 1 or claim 2, wherein the particulate trap is a catalysed particulate trap, which comprises both an oxidation catalyst and a filter.
- 4. Use or method according to claim 3 wherein the particulate trap is a continuously regenerating trap (CRT<sup>TRADE MARK</sup>).
  - 5. Use or method according to any one of the preceding claims wherein the diesel engine is a heavy duty diesel engine.
  - 6. Use or method according to any one of the preceding claims wherein the nucleation mode particles have a diameter of 30 nm or less, such as in the range of from 1 nm to 30 nm inclusive, for example in the range of from greater than 3 nm to 30 nm inclusive.
    - 7. Use or method according to any one of the preceding claims wherein the low sulphur fuel has a sulphur content (by weight) below 100ppm, preferably below 50ppm.
- 20 8. Use or method according to claim 7, wherein the sulphur content (by weight) of the fuel is below 20ppm, and most preferably is 10ppm or lower.

- 9. Use or method according to any one of the preceding claims, wherein the low sulphur lube oil has a sulphur content (by weight) of less than 0.4%, such as less than 0.3%.
- 10. Use or method according to claim 9, wherein the lube oil has a sulphur content (by weight) of less than 0.2%, and most preferably less than 0.15%.
- 11. Use or method according to any one of the preceding claims, wherein the lubricating oil has a ZDDP content at most 0.8% by weight, preferably at most 0.4% by weight, and more preferably is substantially free of ZDDP.
- 12. Use or method according to any one of the preceding claims, wherein the
  10 lubricating oil comprises one or more anti-wear additives which might be used, at least
  in part, to replace ZDDP, selected from the group consisting of (a) molybdenum
  containing compounds, such as molybdenum dithiocarbamate (MoDTC), molybdenum
  dithiophosphate and molybdenum amines, (b) organic based friction modifiers, such as
  oleamides, acids, amines, alcohols, phosphate esters and glycerol monooleates, and (c)
  salicylate-type detergents, such as calcium salicylate and magnesium salicylate.
  - 13. Use or method according to any one of the preceding claims, wherein the lubricating oil comprises one or more anti-oxidant additives which might be used, at least in part, to replace ZDDP, selected from the group consisting of aromatic amines or phenolic compounds, such as hindered phenols.
- 20 14. Use or method according to any one of the preceding claims, wherein the lubricating oil comprises one or more corrosion inhibitor additives which might be used, at least in part, to replace ZDDP, selected from non-sulphur detergent additives.
  - 15. Use or method according to any one of the preceding claims, wherein the lubricating oil comprises one or more other additives selected from one or more of anti-
- 25 foam additives, Viscosity Index improvers and dispersants.